

**ABSTRACT OF THE DISCLOSURE****METHOD AND APPARATUS FOR QUALIFYING COLLECTION OF  
PERFORMANCE MONITORING EVENTS BY TYPES OF INTERRUPT WHEN  
INTERRUPT OCCURS**

A method, apparatus, and computer instructions for qualifying events by types of interrupt when interrupt occurs in the processor of a data processing system. A programmable performance monitoring unit (PMU) is used to program hardware counters that collect events associated with a type of interrupt, including nested interrupts. The performance monitoring unit may also count events that occur while servicing interrupt requests based upon the state of interrupt processing. Events that are known to the performance monitoring unit such as instruction retired, TLB misses, may be counted at the same time using a number of performance monitoring counters in the performance monitoring unit.